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AUTHOR Allen, Ruth M.
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ABSTRACT

This study examined the evolution of the accuracy and thoroughness of teachers' recall of their own, and their students', specific classroom behaviors, noting its relationship to the frequency and level of their reflection. Participants of the study were three groups of elementary teachers (four novice student teachers, five teachers with 1-6.5 years of experience, and three teachers with 10-30 years of experience). Teachers were observed and audiotaped teaching for one class period. Detailed notes were taken of specific student and teacher classroom behaviors. A 1-hour structured interview following the observation asked teachers to recall their own, and their students', classroom behaviors. The study compared teachers' recall to the recorded recall, making comparisons across and within groups; interviews were analyzed for common themes. Teachers' elaborations during the interviews were considered their reflections on the behaviors. Only the most experienced teachers exhibited accurate recall. Teachers progressed in thoroughness of recall along different paths and different rates. There was a continuum from general recall that lacked thoroughness through very specific and thorough recall to general and apparently less thorough recall. Reflection on personal teaching experiences was necessary for the development of thoroughness. When years of experience were equal, more reflective teachers exhibited more thorough recall. When the consistency and frequency of reflection were relatively equal, more experienced teachers demonstrated more thorough recall. (Contains 31 references.) (SM)

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IMPACT OF TEACHERS' RECALL ON THE EFFECTIVENESS OF THEIR REFLECTION: IMPLICATIONS FOR TEACHER EDUCATORS

Ruth M. Allen
Metairie Park Country Day School

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FREQUENCY AND LEVELS OF REFLECTION: THEIR RELATIONSHIP TO THE EVOLUTION OF NOVICE THROUGH EXPERT TEACHERS' RECALL

Ruth M. Allen
Metairie Park Country Day School

Objective

Accuracy/thoroughness of recall is important because it is a necessary precursor to teachers achieving the capability of effective reflection. This qualitative study examined the evolution of the accuracy/thoroughness of novice through expert teachers' recall of their own and their students' specific classroom behaviors and its relationship to the frequency and level (s) of their reflection (Van Manen, 1977)

Theoretical Framework

A primary goal of teacher education programs is the development of effective teachers. Reflective teaching is viewed as a paramount vehicle for enhancing the development of effective teachers; therefore, it is the aim or salient theme of a vast and increasing number of teacher education programs (Calderhead, 1989; Loughran, 1995; Richardson, 1990; Ross, 1989; Smyth, 1989; Wildman, Niles, Magliaro, & McLaughlin, 1990). Reflective teaching is defined by Zeichner and Liston (1987) as a process of assessing the origins, purposes, and consequences of one's work at all three levels of Van Manen's (1977) levels of reflectivity. There is a general consensus that reflectivity leads to professional growth (Ferguson, 1989; Frieberg & Waxman, 1990; Van Manen, 1991; Wildman & Niles, 1987; and Wildman et al., 1990). For many teachers, especially experienced teachers, self-directed assessment of one's own teaching is the primary method for effecting improved teaching performance and, therefore, growing in expertise (Irvine, 1983; Loughran, 1995).

The reflective process is initiated by questions whose essence is the recall of specifics (Eisner, 1991; Loughran, 1995; Noordhoff & Kleinfeld, 1990; Roth, 1989; Smyth, 1989). This implies that accurate/thorough recall is necessary in order to proceed to subsequent questions in the reflective process.

Typically, experienced teachers have grown in cognition in their years of teaching and possess rich schemata (Allen & Casbergue, 1995, 1997; Brown, Bransford, Ferrara, and Campione, 1983; Carter, Sabers, Cushing, Pinnegar, & Berliner, 1987; Carter, Sabers, Stein, & Berliner, 1988; Chi, Feltovich, & Glasser, 1981; Chase & Simon, 1973; Clarridge & Berliner, 1991; Larkin, McDermott, Simon & Simon, 1980; Livingston & Borko, 1989; Peterson and Comeaux, 1987) which allow them to demonstrate significantly better recall ability of meaningful classroom occurrences than novices (Allen & Casbergue, 1997, ; Carter et al., 1987; Clarridge & Berliner, 1991; Peterson & Comeaux, 1987). Typically, novices recall neutral behaviors and do not recall positive behaviors, (Allen & Casbergue, 1995, 1997) or blatant unacceptable behaviors (Allen & Casbergue, 1995, 1997; Clarridge & Berliner, 1991). Therefore, novices cannot effectively answer the first question that initiates the process of reflection, e.g. "What happened?" (Eisner, 1991; Loughran, 1995, April) or "What did I do?" (Smyth, 1989). This fact supports the conclusion that novice teachers have limited ability to reflect and analyze (Berliner, 1988, 1989; Livingston & Borko, 1989; Wildman & Niles, 1987). If novices cannot accurately/thoroughly recall and expert teachers can, then when and how do novices develop this ability to move through the levels of accurate/thorough recall of specific behaviors on their journey toward expertise?

While this body of research explores recall differences between novice and expert teachers, only in one study (Allen & Casbergue, 1997) have researchers included an intermediate group of teachers and described the cognitive development and continua related to the recall of classroom behaviors as one moves from novice to more experienced to expert teacher. No researcher has compared the recall ability of novice through expert teachers to the frequency and level(s) of their reflectivity.

Methods/Data Source

The sample for the current study consisted of three groups of elementary school teachers: four novices, student teachers in their first or second week of actual teaching; five intermediate group teachers, teachers with 1 to 6.5 years experience; and three experts, teachers with 10 to 30 years experience. Qualitative methods were utilized in this research as described below.

The teachers were observed teaching in a natural setting for one class period by the primary researcher. The class was audiotaped, and detailed notes of the teachers' and students' specific classroom behaviors were recorded. A one hour structured interview followed the observation during which teachers recalled their own and their students' specific classroom behaviors. The interviews were audiotaped. The teachers' recall was subsequently compared to the recorded observations to determine the accuracy (correctness) and thoroughness (completeness) of their recall. Comparisons were made within groups and across groups. In addition teachers' responses to the interviews were analyzed for common themes. Teachers' elaborations during the interviews were considered their reflections on their own and their students' behaviors during the observed class. Their elaborations were analyzed to determine if the teachers reflected and, if so, how often and at which of the three levels of reflectivity described by Van Manen (1977). Subsequently, the accuracy/thoroughness of the teachers' recall was compared to the frequency and levels of their reflection.

Results

Infrequent inaccuracies in recall were noted with novices through teachers with 1 to 3.5 years experience. The teacher with 6.5 years experience and the experts exhibited accurate recall. During the analysis of teachers' thoroughness of recall, the following themes emerged. (1) As teachers gained experience, their reported focus during teaching shifted from their own behaviors (novices) to their students' behaviors (intermediate group) to a combination of their own and their students behaviors (experts). (2) Teachers' reported focus did not consistently concur with the focus apparent in their oral recall until teachers had a minimum of 6.5 years experience. (3) Novices recalled neutral behaviors, and the more experienced teachers recalled neutral, negative, and positive behaviors. (4) The findings also demonstrated that teachers progressed in thoroughness of recall along different paths and at different rates.

A continuum was observed from general recall that lacked thoroughness through very specific and thorough recall to general and apparently less thorough recall. It was concluded that the latter general recall indicated pattern formation, i.e. subsuming of specific behaviors, in the schemata of the four most experience teachers. Another continuum was observed from hesitant, uncertain, inconsistent, strained recall to fluid, certain, consistent, and generally effortless recall.

With the exception of an outlier in the novice group, each of the teachers demonstrated reflection at the three levels of reflectivity described by Van Manen (1977), but they placed emphasis on different levels and exhibited different consistencies of reflection. All teachers reflected about equally at level I which is primarily concerned with efficient and effective application of pedagogical knowledge. Novices and the teacher not trained in reflection with one year of experience reflected essentially equally at all three levels. With increasing experience, the teachers placed more emphasis on level II, the assessment of educational consequences of a teaching action and/or the clarifying of assumptions and predispositions underlying competing educational goals, and level III which is concerned with whether human needs and purposes are being met.

When compared to the novices, three of the intermediate group of teachers reflected twice as frequently at levels II and III as the novices. The expert teachers reflected four times more frequently than the novices at level II and three times more at level III. The experts reflected twice as often at levels II and III than the intermediate group.

When the frequency of reflection and the corresponding levels of reflectivity were compared to the thoroughness of recall of an individual or members composing a group or one group to another, the results indicated that reflection on ones' teaching experiences, i.e. ones' own behaviors and the behaviors of ones' students, is necessary for the development of thoroughness

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of recall, i.e. professional growth. The findings indicate that when years of experience are equal, the more reflective teacher(s) will exhibit the more thorough recall. When the consistency and frequency of reflection are relatively equal, the more experienced teacher(s) will demonstrate the more thorough recall.

Educational Significance

Resulting knowledge of the effect of the relationship between frequency and levels of teachers' reflections and teaching experience on the accuracy/thoroughness of teachers' specific recall of their own and their students' behaviors has strong implications for the design and evaluation of programs for beginning teachers. Teacher education programs that stress reflectivity need access to research results that demonstrate the shifts and changes that occur in recall ability of novices as they move toward expertise, and that pinpoint when teachers can be expected to develop the accurate/thorough recall which allows them to effectively reflect. Prior to this time, teachers may be reflecting on inaccurate/incomplete recall; and, therefore, their conclusions would not produce enlightenment of true problem areas or awareness of strengths.

Data from this study may supply support for revision of current teacher education programs to include curriculum and instruction which most effectively promote and enhance novices' accurate/thorough recall ability, and/or necessitate teacher educators' reconsideration of their goals so as not to expect too much from novices too soon. The results of this study may also supply the impetus and act as a guide for teacher educators to devise and utilize a different set of criteria for selection of cooperating teachers. The results may may encourage the establishing of workshops for cooperating teachers which provide training in and techniques for guided reflection, and increase their awareness of teachers' cognitive development, the needs of preservice teachers, and what can be realistically expected of a novice teacher so they, as well as the teacher educators, do not expect too much too soon.

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